criteria. This has been stated in a variety of ways by different scholars and has been frequently referred to within the constructs of the principle of "least effort" (Zipf 1949), the "mini-max" model (c.f. Gumerman 1971), and/or the law of "minimum effort" (Losch 1954). These principles, laws, and/or models all have in common the basic proposition that human activities tend to be carried out at locations which afford maximum access to desired or culturally "important" resources (see Hill 1971; Renfrew 1977), and further, that this tendency is sufficiently patterned and consistent to be predictable (Cancian 1966). The objective then, as regards the development of predictive models, is to observe and correlate the relative occurrence of specific types of behavioral loci (sites) with their associated spatial and environmental characteristics. More will be said on this in the following sections and in Chapter 3.

Attempts to define environmental criteria which are applicable to the location of aboriginal settlements are rare in North Carolina, with the few attempts found primarily in unpublished manuscripts (e.g., Phelps 1975a; Robertson and Robertson 1974, 1978; Coats n.d.; and Woodall and Snavely 1977). Understandably, the net result of these studies has been the identification of only two basic (environmental) common denominators--the proximity to potable water and well-drained soils. These variables, however, apply primarily to base settlements (see the following discussions), and when used indiscriminately (i.e., without adequate environmental data), can have a relatively low total predictive power.

The goal of the statewide survey predictive modeling program is to identify a broader range of environmental and cultural variables to be used in projecting within reasonable confidence intervals (1) where sites can be expected to occur (i.e., high, medium, and low probability areas); (2) what types of sites can be expected in different areas; (3) the relative abundance of different sites in different areas; and (4) the probable condition and significance of those sites. In some instances, predictive sample surveys will be undertaken to achieve this goal, some of which it is hoped will be *cumulative* (c.f., King, et al. 1977), such that early sampling predictions can be tested through an eventual "total survey" of the study area. In other instances, data gathered by other archaeologists, using a standardized computer format site form (see Chapter 3), will be used in the modeling process.

The Role of Prediction in Cultural Resource Planning and Management: there is little doubt that most archaeologists familiar with a particular region can predict with some measure of confidence where sites (and even what types of sites) are likely to be found in that region. The accuracy of prediction, however, will probably decrease sharply as an archaeologist enters a new cultural and/or natural environment. Cultural resource planners (for example, A-95 reviewers) must be capable of providing accurate and effective predictions on a regional, multiregional, and statewide basis. In a state of the size and natural and cultural diversity of North Carolina, this is indeed a substantial task; it is also somewhat unrealistic under normal circumstances. It is unrealistic for the simple reason that the A-95 review system, as it concerns cultural resources, assumes in part